ABSTRACT

A method for producing a fluorine-containing organic compound represented by the formula (7):

$$R-Fm$$
 (7)

wherein R represents a substituted or unsubstituted saturated hydrocarbon group, or a substituted or unsubstituted aromatic group and m represents an integer satisfying the inequality: $1 \le m \le n$, which comprises reacting a fluorinating agent represented by the formula (1):

$$\begin{array}{c|c}
R^{5} & R^{1} \\
 & R^{4} & R^{2} \\
 & R^{3} & (F^{-})_{x} & (Y^{-})_{1-x}
\end{array}$$
(1)

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wherein R^1 and R^3 are the same or different, and represent an optionally substituted alkyl group, R^2 , R^4 and R^5 are the same or different, and represent a hydrogen atom or an optionally substituted alkyl group, x satisfies $0 < x \le 1$, and Y^2 represents a monovalent anion other than a fluoride ion.

with an organic compound of the formula (6):

$$R-Ln$$
 (6)

wherein R is the same as defined above, L represents a leaving group and n represents an integer of 1 or more, and a fluorinating agent using the same are described.